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Serial No.: 10/698,341

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First named inventor: Gian Paolo Mattellini

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## RESPONSE TO OFFICE ACTION

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The following is in response to the Office action mailed August 2, 2006.

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## In the disclosure:

The paragraph at page 11, beginning line 16, is changed as follows.

--Referring now to Fig. 1, a receiver of a telecommunications system 10 is shown according to the invention as including a detector 11 for demodulating a received signal of a stream of symbols modulating a carrier wave, a module for estimating the channel impulse response c(t) (i.e. for determining gains  $c_i$  of a transversal filter representing the channel impulse response c(t)), an equalizer or other means of accounting for the channel impulse response c(t) (such as a module implementing the Viterbi algorithm) and so determining a transmitted symbol sequence corresponding to a received symbol sequence, given the estimate of the channel impulse response c(t), and a symbol mapper for mapping the received symbols to corresponding bits. The received symbol stream is a socalled normal burst (the content of a time slot of a TDMA frame). In at least some of the bursts, a (transmitted) training sequence X is conveyed and received as a received training sequence Y, providing the receiver with a means for estimating the channel impulse response c(t) in terms for example of gains  $c_i$  of a transversal filter, as discussed above, by performing correlations of the received training sequence Y with a replica  $X_0$  of the transmitted training sequence X (the replica being stored in the detector 11). Since the transmitted training sequence X is only one of various different training sequences available for use, the detector is either provided with a code indicating the particular sequence being used, as shown in Fig. 1, or else determines the training sequence being used by examining the received bit stream. Ultimately, the detector provides a bit stream (only the data bits

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of the received bit stream) to (typically) a decryption module 13, which, in combination with other modules (not shown), further processes the detected bits, and then a channel decoding module 14 decodes the further processed bit stream (removing the redundancy added to allow error detection and possibly error correction) and a speech decoder 15 and a digital to analog converter 16 process the output of the channel decoding module 14 so as to provide a speech signal to a microphone 17.--